REMARKS

Claims 1-42 are currently pending in the subject application and are presently under consideration. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments herein.

I.   Rejection of Claims 1-42 Under 35 U.S.C. §103(a)

Claims 1-42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jordan (6,016,392) in view of Schaefer *et al.* (6,629,392). Withdrawal of the rejection is respectfully requested for at least the following reasons. Neither Jordan nor Schaefer *et al.* alone or in combination teach or suggest each and every element of the claimed invention.

Independent claim 1 (and similarly independent claims 26, 37, 40 and 42) recite *communications between managed and unmanaged object systems.* As noted in the previous Reply to Office Action dated October 24, 2003, *managed and unmanaged object systems* are distinguished in one aspect by the type of object lifetime management supported in such systems. This management of objects takes place in volatile memory regions (*e.g.,* Ram, cache memory) as well as the storage and execution of the objects as well. In an unmanaged system, techniques such as reference counting are employed to manage object lifetime. For managed systems, techniques such as garbage collecting are employed. Interface wrappers support communications between these disparate type object systems in a unique and efficient manner.

In sharp contrast to the claimed invention, Jordan neither discloses nor suggests *communications between managed and unmanaged object systems.* Rather, Jordan merely discloses communications between objects in the same type of object system (*e.g.,* COM system). For instance, Jordan does not contemplate how objects in a managed environment may communicate with objects in an unmanaged environment. Jordan merely teaches an alternative interface technique for an object - not bridging communications between objects operating in *disparate* object systems as claimed. Moreover, managed object systems are not disclosed or suggested in Jordan. Also, as conceded by the Examiner, Jordan does not teach or suggest *a memory boundary*

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between managed and unmanaged object systems let alone describing an interface for communicating between such systems as recited in the claims.

Schaefer *et al.* does not make up for the aforementioned deficiencies of Jordan with respect to facilitating communications between managed and unmanaged object systems. In fact, Schaefer *et al.* is entirely *unrelated* in any manner with respect to the claimed invention. Schaefer *et al.* discloses a system whereby non-volatile memory is broken into "unmanaged space" and "managed space." These terms have no contextual relationship to the claimed invention for a number of reasons. For instance, managed and unmanaged space in Schaefer *et al.* refers to segmenting non-volatile memory which is entirely different than a segmented volatile memory whereby objects execute, and the managed side objects are processed by a garbage collector and the unmanaged side objects are reference counted. On the other hand, objects in applicants' claimed invention execute in volatile memory such as RAM which is infeasible with respect to the non-volatile memory disclosed in Schaefer *et al.* Moreover, the term "managed" in the context of Schaefer *et al.* merely refers to a portion of a flash device which is managed by a non-volatile storage manager which controls access to a portion of a "BIOS" which is entirely different than facilitating communications between objects. Therefore, the meaning of the terms managed and unmanaged in Schaefer *et al.* are completely unrelated to the terms managed and unmanaged recited in the respective claims.

In addition to the reasons cited above, there is clearly no motivation provided in the references themselves to combine the cited references since Schaefer *et al.* is entirely unrelated to object systems of the claimed invention that by definition employ objects that execute substantially out of volatile memory.

> The mere fact that the reference can be modified does not render the modification obvious unless the referenced art also suggests the desirability of the modification. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Furthermore, a teaching or suggestion to make the claimed combination and a reasonable expectation of success must both be found in the prior art, not in applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

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In this case, there can be no expectation of success even if the references were combined since Schaefer *et al.* does not bear any resemblance to the object execution environment of the claimed invention.

Since neither Jordan nor Schaefer *et al.* alone or in combination teach or suggest the invention as claimed, it is respectfully submitted that this rejection be withdrawn.

II.   Rejection of Claims 18-21, 23, 24, 34-36 Under 35 U.S.C. §103(a)

Claims 18-21, 23, 24, 34-36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jordan in view of Schaefer *et al.* and in further view of Foody *et al.* (5,732,270).

This rejection should be withdrawn for at least the following reasons. Foody *et al.* does note make up for the aforementioned deficiencies of Jordan or Schaefer *et al.* alone or in combination with respect to claims 1, 26, 37, 40 and 42. Notably, Foody *et al.* does not teach or suggest employment of *interface wrappers* as recited in these claims. Rather, Foody *et al.* teaches creating a *redundant* proxy object that *mirrors* a foreign object. Thus, any manipulations to the proxy are mirrored in the foreign object. One clear disadvantage to creating a redundant object is this type of communication consumes more memory than the claimed invention that employs interface wrappers to communicate to a single object in a disparate system. Also, Foody *et al.* does not disclose or suggest communications *between managed* and *unmanaged* object systems as recited in the subject claims. In view of the foregoing, it is readily apparent that the cited references do not make obvious applicants' invention as recited in the subject claims; and this rejection should be withdrawn.

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CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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